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Long-Term Patterns of Offending in Women

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Abstract

The empirical and theoretical knowledge base on criminal careers is heavily influenced by data on boys and men. What pathways do women follow in and out of crime through their adulthood? With data from the Criminal Career and Life-Course Study, this article describes the criminal careers of 432 women and 4,180 men, a representative sample of all those who had a criminal case adjudicated in 1977 with retrospective criminal histories up to age 12 and prospective data to death or 2003. Comparing women and men, this article describes life-span patterns of prevalence, onset, duration, termination, frequency, crime mix, and overall trajectories and discusses implications for practice and for developmental and life-course theory.

Keywords

women offenders, gendered life-span pathways, criminal careers, developmental and life-course criminology

David Farrington, on receiving the 2002 Sutherland Award of the American Society of Criminology, summarized the state of the art in current developmental and life-course criminology. He listed some empirically supported observations that might be considered “widely accepted conclusions” about criminal careers (Farrington, 2003; see also Piquero, Farrington, & Blumstein, 2007, p. 3). Some accepted conclusions were that offending prevalence peaks in the late teenage years, most offenders start their criminal careers between ages 8 and 14, most offenders desist from crime between ages 20 and 29, and an early onset of offending is associated with a frequent and durable criminal career. As Farrington noted, however, these conclusions are based predominantly on data on male offenders.

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There have been important studies on women's criminal careers. Among the first of these were the pioneering works by Glueck and Glueck (1934), which followed women for 5 years after parole, and Robins (1966), which followed children who had been seen in a St. Louis clinic between 1924 and 1928 to their 40s. Other prospective longitudinal studies included the following:

- The Racine birth cohorts (Shannon, 1988, 1991) followed 799 girls and boys from age 6 to age 25 (the 1942 cohort) or age 30 (the 1949 cohort; D'Unger, 2000; Eggleston & Laub, 2002).
- The Wolfgang 1958 birth cohort (D'Unger, Land, & McCall, 2002; Kempf-Leonard, Tracy, & Howell, 2001; Mazerolle, Brame, Paternoster, Piquero, & Dean, 2000; Tracy, Wolfgang, & Figlio, 1985) followed girls and boys born in 1958 to age 26.
- The Kauai Longitudinal Study (Werner & Smith, 1992, 2001) followed a birth cohort of 505 children born in 1955 in Kauai, Hawaii, until they were to age 40.
- The National Youth Survey, a U.S. probability sample of girls and boys, followed children's self-reports from ages 11 to 17 in 1976 to ages 27 to 33 in 1993 (Couture, 2009; Elliott, 1994; Elliott, Huizinga, & Menard, 1989; Fagan, 2003; Tolan & Thomas, 1995).
- The Woodlawn Study followed 606 girls and 636 boys for 28 years, from first grade to age 32-34 (Ensminger, Kellam, & Rubin, 1983; Juon, Doherty, & Ensminger, 2006).
- The National Collaborative Perinatal Project (Denno, 1994; Gomez-Smith, 2004; Gomez-Smith & Piquero, 2005; Piquero & Chung, 2001; White & Piquero, 2004) followed a birth cohort of 987 African American children in Philadelphia to age 36-39 in 1998.
- The Seattle Social Development Project followed a low-income sample of all 213 fifth-grade girls and 201 boys in 18 schools to age 18 (Chung, Hawkins, Gilchrist, Hill, & Nagin, 2002).
- The Child Development Project (Lansford et al., 2007) in Tennessee and Indiana followed 465 girls and boys from kindergarten to age 21.
- The Ohio Serious Offender Study (Cernkovich, Lanctôt, & Giordano, 2008; Giordano, Cernkovich, & Holland, 2003; Giordano, Cernkovich, & Lowrey, 2004; Giordano, Cernkovich, & Rudolph, 2002; Giordano, Deines, & Cernkovich, 2006) gathered retrospective and prospective life-history data on all 127 girls and a sample of 127 boys at state institutions for delinquents and followed them to 1995, 13 or 14 years after release.
- The Pathways to Desistance Study (Brame, Fagan, Piquero, Schubert, & Steinberg, 2004) followed 1,354 adjudicated delinquents (14% girls) in Phoenix and Philadelphia for 3 years to age 16-20, using arrest and self-report data.
- Warren and Rosenbaum (1986) followed 159 girls who had been committed to the California Youth Authority in the 1960s into adulthood (ranging from age 26 to age 37).

- The U.S. Parole Commission dataset (Rhodes, 1989) followed 2,300 people (7% women) for 5 years after release from federal prison in 1978.
- Benda (2005) and Benda, Harm, and Toombs (2005) followed 300 women (mean age 24) and 300 men (mean age 26) for 5 years after graduation from a boot camp.

Prospective longitudinal studies of women outside the United States include the following:

- The Örebro, Sweden, birth cohort (Bergman & Andershed, 2009; Stattin, Magnusson, & Reichel, 1989) followed children born in 1955 to age 43-48.
- The Stockholm birth cohort (Kratzer & Hodgins, 1999; Wikström, 1990) followed children born in 1953 to age 30.
- The Christchurch Health and Developmental Study (Fergusson & Horwood, 2002) followed 630 girls and 635 boys born in Christchurch, New Zealand, in mid-1977 to age 21.
- The Dunedin, New Zealand birth cohort (Bardone, Moffitt, Caspi, Dickson, & Silva, 1996; Moffitt, Caspi, Rutter, & Silva, 2001; Moffitt & Caspi, 2001) followed 630 girls and 635 boys born in 1977 to age 32.
- The Criminal Career and Life-Course Study (CCLS; Blokland, Nagin, & Nieuwebeerta, 2005; van der Werff, 1981) followed 5,164 women and men for 25 years from their adjudication in 1977.
- The Utrecht Study of Childhood Development (Landsheer & van Dijkum, 2005) followed 157 girls and 115 boys from age 12-14 to age 18-20 in 1997.
- The Jyväskylä, Finland, Longitudinal Study of Social Development birth cohort (Hamalainen & Pulkkinen, 1995; Rantakallio, Myhrman, & Koironen, 1995) followed 5,757 girls and 6,007 boys born in 1966 to age 32.

Still, very few longitudinal studies of long-term patterns of offending in girls and women follow them further than young adulthood. Consequentially, we know little about the application of developmental theories to women throughout their life span. As many researchers, such as Belknap (2007), Gilfus (1992), Hipwell and Loeber (2006), Hoyt and Scherer (1998), and Leonard (1982), have concluded, the landscape of research on women's criminal careers is sparsely populated. This article responds to this situation by asking the following: Do Farrington's "widely accepted conclusions" about criminal careers apply to women as well as to men?

It is important to address this issue for several reasons. First, accurate knowledge about women's criminal careers is of fundamental importance to criminological theory. No general theory of criminology may ignore half of the population (Belknap, 2007; Daly & Chesney-Lind, 1988; Flavin, 2001; Leonard, 1982; Morris, 1987; Rasche, 1975). Also, looking at gender differences in life-span offending patterns may provide the insight necessary to integrate theories on offending across the life span (Belknap, 2007; Cohen & Vila, 1996; D'Unger et al., 2002). Leonard (1982) accused classic theories of

delinquency of being “biased to the core” because they are based on assumptions relating to boys but not girls. In a retrospective analysis of 500 women and men recidivists, DeLisi (2002) found that women career criminals do not appear to fit current theoretical models of pathways to crime and concluded that “gender matters to the study of criminal careers” (p. 40).

Second, practitioners depend on accurate knowledge about women’s criminal careers. Interventions developed for boys and men may not be applicable to girls and women (Hipwell & Loeber, 2006). Tools such as standard risk-assessment measures may not work for women (Holtfreter, Reisig, & Morash, 2004; Reisig, Holtfreter, & Morash, 2006) because they were based on men’s offending patterns. Belknap (2007) points out that criminological research ignores to its peril the findings of studies exploring women’s pathways to crime, some of which, such as research on abuse and trauma, could help to explain criminality in boys and men.

Third, the societal cost of ignoring women can be high. As Kratzer and Hodgins (1999) point out, “the overall damage to the society” of the criminality of women may be greater than prevalence rates might indicate (p. 69). Feminist scholars remind us that women are often caretakers for children, the elderly, and the sick (Enos, 2001; Ferraro & Moe, 2003; Gilfus, 1992; Pepler & Craig, 2005; Richie, 1996). Not only can these responsibilities increase strain (Green & Rodgers, 2001; Hagan, Simpson, & Gillis, 1987; Slocum, Simpson, & Smith, 2005), but they can also motivate caretakers to obtain resources illegally (Cobbina, 2009). Ferraro and Moe (2003) found that “women with children in their custody conceptualized crime as an alternative to hunger and homelessness” but that women without children did not (p. 19). The damage extends beyond the woman herself; incarceration or other criminal justice interventions have strong, lasting, and often devastating effects on those people she is caring for (Bhana & Hochfeld, 2001; Covington, 2002; Cunningham & Baker, 2003; Enos, 2001; Green & Pranis, 2006; Harm & Phillips, 2001; Howard League for Penal Reform, 1995; Loucks, 2004; Luke, 2002; Richie, 2001; Sharp & Marcus-Mendoza, 2001; Woodrow, 1992).

This article is a step toward increasing the body of information about the criminal careers of women. To determine whether Farrington’s “widely accepted conclusions” about criminal careers apply to women as well as to men, we analyze the CCLS dataset. The CCLS followed the criminal careers of 432 women and 4,180 men who had been arrested (but not necessarily convicted) in the Netherlands in 1977. The sampled people were followed retrospectively to age 12 (minimum age of criminal responsibility) and prospectively to age 87 or death. We examined whether women and men differ in the typical age when criminal behavior begins and ends, the average duration of their criminal careers, the frequency of offending related to the career duration, the types of crime that constitute the average criminal career, and the typical patterns of criminal behavior across their life span.

Research on Gender Differences in Criminal Careers

A common way of organizing questions about criminal careers is to examine four dimensions (Blumstein, Cohen, Roth, & Visher, 1986; Farrington, 2003; Piquero et al., 2007):

participation (any offending over the life span or over a given age range), *duration* (length of period[s] of active offending over the life span), *frequency* (number of offenses within a given time period for offenders active in that period), and *crime mix* (variation in type of crime over the life span). Duration contains two dimensions, *age of onset* (age at the first known offense) and *age of termination* (age at the last known offense). These career criminal parameters are often summarized into types of developmental life-span crime patterns, such as early onset or adolescent limited (Moffitt & Caspi, 2001), or behavioral trajectories (Nagin & Tremblay, 2005).

Participation

Studies based on a variety of samples and measures consistently find criminal participation to be lower for women than men and the decline in prevalence with age more prominent for women (Belknap, 2007; Blanchette & Brown, 2006; Kruttschnitt, 1994; Visser & Roth, 1986). Results that appear to be an exception tend to be based on the overrepresentation of juvenile girls in status offenses (offenses such as truancy or running away, illegal in the United States only for juveniles; see Rojek & Erickson, 1982) and child welfare cases. Evidence from studies of women and men followed past age 21 include Elliott (1994), Ensminger et al. (1983), Juon et al. (2006), Moffitt et al. (2001), Rantakallio et al. (1995), Tracy et al. (1985), van der Werff (1981, 1986, 1989), and Wikström (1990). Landsheer and van Dijkum (2005) found similar results with children and adolescents. In the Dunedin prospective birth cohort (Moffitt et al., 2001, cited in Blokland, 2005), the male-to-female conviction ratio was 2.5:1 up to age 21, with the ratio even larger when only violent crimes were considered. In self-report data from the prospective National Youth Study, Elliott (1994) found that "at age 12, the male-to-female differential is 2 to 1; by 18 it has increased to 3 to 1; by age 21, it is 4 to 1" (p. 6, emphasis in the original). In the Swedish Metropolitan Cohort Study (Wikström, 1990), the participation rate from age 13 to age 25 or 26 was 6% for women and 31% for men.

Retrospective cohort studies yield similar results. Tillman (1987), looking at arrest records of California residents born in 1956, found that 11% of women versus 35% of men had been arrested between ages 18 and 29. In Denmark, Kyvsgaard (2003) estimated that "at least 1/7 of the men and 1/20 of the women will be registered for a penal code violation in their lifetimes" (p. 76). In a sample of people born in 1979-1980 who had had been charged with a federal crime committed before age 22 in six Canadian provinces, Carrington, Matarazzo, and deSouza (2005) found population-based risks of 8% for girls and 28% for boys of being referred to a youth or provincial court between ages 12 and 22.

Duration: Age of Onset

Age of onset is age at the first known offense; in adult onset, there are offense(s) in adulthood but not in childhood or adolescence (Eggleston & Laub, 2002). Operationally, the results of age of onset research are highly dependent on the dataset and on the

cutoff point for adult. Obviously, studies that follow children only through youth and adolescence cannot look at adult onset (Silverthorn & Frick, 1999), but studies of children and teens have found late onset to be more prevalent in girls than boys (Chung et al., 2002). One of the major findings of the classic study *Deviant Children Grown Up* (Robins, 1966) was that "boys were younger than girls at first conduct symptoms predictive of adult antisocial behavior" (p. 46). A widely accepted conclusion in developmental life-span research is that the first known self-reported offense typically happens between ages 8 and 14.

Although some scholars (e.g., Moffitt et al., 2001) contend that adult onset is so rare that it does not merit investigation, others (e.g., Bergman & Andershed, 2009; DeLisi, 2002) have found it more prevalent for women. Stattin et al. (1989) found that the peak age at first offense was 21 to 23 for young women and 14 to 16 for young men; Kratzer and Hodgins (1999) found that the prevalence of "adult starters" after age 18 was 77.5% for women and 55.2% for men (pp. 61-62); Wikström (1990) found that 13% of women versus 5% of men were first-time offenders at age 22 or later. Comparing conviction histories of men in the Cambridge cohort to their brothers, sisters, wives, and parents, Farrington, Lambert, and West (1998, p. 103) and Farrington and Painter (2004, p. 21) found that the average age of onset was 18 to 19 for the study cohort and their brothers versus 20 to 21 for their sisters and wives, and 27 for fathers versus 33 for mothers. In retrospective self-reports of 351 women being held at a detention center, Simpson, Yahner, and Dugan (2008) found substantial (54%) adult onset (age 21 or older).

Other studies find no gender difference or more adult onset in men. With age 13 as the cutoff point, White and Piquero (2004) found late onset in 77% of the girls and 68% of the boys (not a significant difference), and Tolan and Thomas (1995) found no significant gender difference in late onset versus early onset. With a cutoff point at age 18, Tracy and Kempf-Leonard (1996) found that under one third of women but 60% of men were arrested for the first time as adults; Gomez-Smith (2004) and Gomez-Smith and Piquero (2005) found adult onset less likely for young women (5.6%) than young men (25.9%); Carrington et al. (2005) found that the first referred incident for 36.5% of women and 44.7% of men was after their 18th birthday.

Duration: Age of Termination or Desistance

Other widely accepted conclusions are that age of onset is related to criminal career duration with early onset predicting a lengthier criminal career (Elliott, 1994; Farrington, 2003; Visher, 2000), that the number of life-span convictions is associated with a lengthier career (Piquero et al., 2007), and that the peak age for desistance is 20 to 29 (Farrington, 2003). Studies that do not follow people to the end of their lives do not have exact information on age of termination. Instead, they examine desistance within a given follow-up period. Chronic or life-course-persistent offending can be an indicator of desistance at a later age. Piquero (2000) found that early onset was significantly related to chronicity (five or more offenses) for both women and men. Tracy and Kempf-Leonard (1996) found that 1.4% of girls became delinquent and 3.5% of delinquent girls became violent and chronic offenders, whereas 3.3% of boys became delinquent and

20.7% of delinquent boys became violent and chronic offenders. Similarly, Moffitt et al. (2001) found that fewer girls than boys became delinquent and that lower proportions of delinquent girls became life-course persistent. Using survival analysis, Benda (2005) found that the likelihood that a criminal career would end after release from a boot camp was significantly higher for women than for men, but Rhodes (1989) found that “women appear to be no more likely than men to desist from crime following arrest. When they persist, they appear to commit crimes at a rate that is not much different from that of their male counterparts” (p. 15). Only a few studies examine the duration of careers for women offenders into adulthood. Prime, White, Liriano, and Patel (2001) followed women and men born in 1953 until age 40. The majority (80% of women and 55% of men) had careers spanning less than a year; excluding one-time offenders, the average duration was 7.1 years for women and 12.4 years for men.

Frequency

Another widely accepted conclusion (Farrington, 2003) is that a small proportion of offenders is responsible for a large proportion of crime; these chronic offenders are typified by early onset, long duration, high individual offending frequency, and greater likelihood of having a violent offense in their criminal history (Piquero et al., 2007). Research on gender differences in frequency shows mixed results. Brame et al. (2004) found that girls had much lower offense frequencies than boys. In retrospective self-reports by a random sample of people aged 14 to 25 in England and Wales, Graham and Bowling (1995) found that the gender ratio for frequency of offenses was close to parity for juveniles, 4:1 (boys to girls) for older teenagers and 11:1 (men to women) for people in their early 20s. The peak age of offense frequency was 16 for young women versus 21 for young men. In Canada, the mean number of court referral incidents per offender between ages 12 and 22 was 2.4 for girls and 3.3 for boys (Carrington et al., 2005). Compared to boys, girls were more likely to be one-time offenders (63% vs. 53%) and less likely to have five or more incidents (11% vs. 18%).

Studies measuring individual offending frequency often find no gender difference. Piquero (2000) found that the chronic offender group (four or more police contacts for women and five or more for men) accounted for 11.6% of the women 16.5% of the men, not a significant difference. Blumstein et al. (1986) found that the offending frequency for girls and women who were actively committing a given type of crime was similar to the offending frequency for active boys and men. However, Wikström (1990) found significant gender differences in individual offending frequencies. At ages 16 and 17, the rate for boys was 23 to 25 times the rate for girls, but the age-specific offending rate for girls remained stable from the age of 17 onward.

Crime Mix

Crime mix refers to offense-type diversity over the life span, such as property versus violent offenses or increasing levels of serious offenses. A widely accepted conclusion is that violent offenders have longer criminal careers than nonviolent offenders (Piquero

et al., 2007), and the longer the career duration the more likely that it will include a violent offense. Criminal careers tend toward diversity rather than specialization, especially careers of offenders who have at least one violent offense in their criminal history (Piquero et al., 2007).

Although there is some evidence of gender differences in crime mix, most of studies have focused on juveniles and included status offenses. For example, in the second Philadelphia birth cohort, Kempf-Leonard et al. (2001; also see Tracy & Kempf-Leonard, 1996) found that girls' and women's crime types are less diverse than boys and men, except that some girls focus on status offenses. Some studies (Piquero & Chung, 2001; Reckdenwald & Parker, 2008) found gender differences in crime mix, but others (Mazerolle et al., 2000) have not. Retrospective life-span studies have found inconsistent results. Warren and Rosenbaum (1986) found that almost half of the women (46%) who had been released from the California Youth Authority were later arrested for a serious offense such as attempted robbery, robbery, child abuse, and murder.¹ DeLisi (2002) found that women and men alike were chronic and versatile offenders, although women's careers disproportionately included forgery, theft, and prostitution and men's careers disproportionately included rape, robbery, and aggravated assault. Similarly, in interviews with Colorado prisoners (128 women and 872 men), English (1993) found significant gender differences in self-reported participation rates for forgery and theft (in which women's participation was higher than men's) and for burglary (in which women's participation was lower). In a retrospective cohort study of girls and boys (ages 8-18) in the juvenile court systems of Phoenix and Utah, Snyder (1988) found girls and boys were equally likely to have a court referral for shoplifting, but boys were more likely than girls to have a court referral for more serious types of larceny/theft and 10 times more likely to be referred for murder, rape, robbery, or aggravated assault. In criminal histories found in British conviction records, women had more shoplifting and trust-violation offenses (mainly stealing from an employer or false accounting) compared to men (Soothill, Francis, & Fligelstone, 2000).

Patterns of Life-span Offending

Life-span offending models examine the overall pattern of offending from age of onset through the final recorded offense. They then attempt to distinguish and describe typical shapes of offending patterns over the life span and to identify typical patterns of change in offending as the offender ages. These patterns are called "*trajectories*" or "*pathways*." For example, Chung et al. (2002) tested one-, two-, three-, four-, five-, and six-group models of offending trajectories and found the five-group solution (non-offenders, late-onset offenders, desisters, escalators, and chronic offenders) had the best balance between parsimony and goodness of fit. In an analysis of presentence investigative reports written about 40 women, Daly (1994) identified five pathways: street women, harmed and harming women, drug-connected women, battered women, and other women. These pathways were not a good fit for the men in the sample, just as pathways and trajectories developed for men or for a total sample often are not a good fit for women (see Heimer, 1995).

Research analyzing gender differences in life-span offending patterns has yielded conflicting results that often are confounded by the length of the life span being analyzed or by the sample being too small to handle the rarity of some life-span patterns in women. Fergusson and Horwood (2002) concluded that the shape of life-span offending patterns of girls and boys did not differ, although girls most likely followed the “low offending risk” and “early adolescent-limited” trajectories and boys most likely followed the “chronic offending” and “later adolescent-limited offending” trajectory types (p. 174). Eggleston and Laub (2002) found that the same trajectory types (nonoffenders, juvenile-only offenders, persistent offenders, and adult-onset offenders) existed for both girls and boys, but there were gender differences in the likelihood of following those types. D’Unger et al. (2002) found three types of life-span patterns—nonoffenders, high-rate adolescent-peak offenders, and low-rate adolescent-peak offenders—but no chronic female offenders. They suggest that the chronic-offending type may have been too rare to appear in the data. Kempf-Leonard et al. (2001) also argue that a low base rate for girls and women may account for the “void” seen in studies of gender and serious or chronic career patterns (p. 455). Landsheer and van Dijkum (2005) found that only a very small proportion of girls followed a “persistent” age-crime curve (p. 739). D’Unger (2000) found that five latent classes optimally described life-span patterns for the boys and men, but only three latent classes (chronic, peaked, and nonoffending) optimally described life-span patterns for the girls and women.

To build on this literature, this analysis will examine gender differences in participation, age of onset, career duration and termination, frequency, and crime mix and gender differences in offending pathways from childhood to the end of life. In addition, we will determine the optimal life-span patterns for women and men.

Method and Findings

Dataset and Sample

The analyses in this article are based on data from the CCLS dataset. The CCLS is a representative sample, selected from a population of all persons who had a criminal case adjudicated in the Netherlands in 1977. It contains a large sample and follows people from age 12 to age 87 or death, with a prospective follow-up period of 25 years after the age of the sampled arrest and retrospective data from the age of the sampled arrest back to age 12. Together, these characteristics make it possible to examine gender differences in experiences with the criminal justice system across the life span.

The CCLS dataset was compiled by the Netherlands Ministry of Justice in 1986 (see Block & van der Werff, 1991; van der Werff, 1986, 1989, for more detailed information on the sampling process). It includes a 4% random sample of criminal cases that in 1977 were either ruled on by a judge or decided on by the public prosecutor. In the Dutch criminal justice system, the public prosecutor has discretionary power to not prosecute every case forwarded by the police.² The 1977 sample undersampled drunken driving cases at 2%; they were weighted in the analysis. In addition to the 4% sample,

there was an additional sample of serious but infrequent offenses.³ This analysis included the extra sample, weighted to represent the original distribution of offense types as they were adjudicated in 1977. Because the 1977 sample of cases included some offenders who had two or more judicial adjudications or prosecutorial decisions in 1977, these cases were weighted accordingly.⁴ For each sampled 1977 case, we obtained data on the type of crime and the outcome. Of the original sample (5,656 people), 492 were excluded because of lack of data on the 1977 case or the lack of criminal history data through 1983, leaving 5,164. Another 1,044 people were eliminated from this analysis because circumstance data were lacking; this facilitated comparison with previous analysis using this reduced sample (e.g., Blokland, Nagin & Nieuwbeerta, 2005; Blokland & Nieuwbeerta, 2005).⁵ The final sample analyzed here included 432 women and 4,180 men (4,612 total).

The criminal careers of the sampled people were reconstructed using information from the General Documentation Files of the Criminal Record Office (i.e., rap sheets) for both the 1977 sampled case and for any other cases in the criminal history, including characteristics of the case, periods of imprisonment (where applicable), and outcome. Types of outcome were not guilty, guilty, prosecutorial decision to drop due to lack of evidence, prosecutorial decision to drop for policy reasons, and prosecutorial fines.⁶ For the 1977 cases, all outcomes were included; therefore some of the sampled people were not found guilty in the 1977 case. However, for other cases in the criminal history, this analysis includes only those in which the outcome was a guilty finding by a judge, a prosecutorial waiver due to policy reasons, or a prosecutorial fine.⁷ In the remainder of this article, we use the term *conviction* to refer to a set of these three outcomes. In all three, the criminal justice system, whether a judge or prosecutor, has determined that the defendant actually did the charged offense. In the other two outcomes, the criminal justice system has either determined that the defendant is not guilty or has determined that there is not enough evidence to make a determination. It is possible that this practice introduced a gender bias in the analysis of life-span convictions, if accused women were more likely than men to be found not guilty by a judge or to have their case waived for lack of evidence (Cauffman, 2008; MacDonald & Chesney-Lind, 2001). To test this possibility, we examined gender differences in outcomes for the 1977 case. Overall, there was no difference. We then examined specific offense types and subtypes. Only one, drug offenses, had a gender difference in outcome, and this disappeared in further analysis of the specific drug charge. Therefore, we decided that it was reasonable to assume that life-span analyses based on only those registrations resulting in convictions would not introduce gender bias.

Table 1 shows descriptive statistics for the sample at registration for the 1977 case. Women on average were older than men (31.8 vs. 26.9; $t = 9.368$; $df = 4,613$; $p < .001$). Most who survived to the end of data collection (January 1, 2003) were above age 50. Sixteen percent died before the end of data collection (14.6% of women and 16.1% of men, not a significant difference); age at death ranged from 16 to 86 ($M = 52.5$). There was no significant gender difference in dying before the end of data collection or, for those who died, age at death. Age ranges for those surviving to 2003 were the same for women and men (37 to 87), but on average surviving women were older than men

Table 1. CCLS Sample Description

		Women (<i>n</i> = 432)		Men (<i>n</i> = 4,180)	
	Range	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Personal characteristics					
Age in 1977					
12-16	0-1	0.035	0.184	0.101	0.301
17-21	0-1	0.168	0.374	0.258	0.438
22-26	0-1	0.141	0.348	0.181	0.385
27-31	0-1	0.165	0.372	0.142	0.349
32-36	0-1	0.144	0.352	0.103	0.305
37 and up	0-1	0.347	0.476	0.214	0.410
Country of origin					
Non-Dutch	0-1	0.148	0.355	0.090	0.287
Occupational status					
High	0-1	0.088	0.284	0.314	0.464
Low	0-1	0.139	0.347	0.314	0.464
Unemployed ^a	0-1	0.772	0.420	0.372	0.483
Dependency indication					
Alcohol	0-1	0.100	0.301	0.387	0.487
Drugs	0-1	0.006	0.077	0.020	0.139
Offending characteristics					
Prior convictions ^b					
No prior convictions	0-1	0.727	0.446	0.511	0.500
Type of offense					
Violence	0-1	0.089	0.286	0.107	0.309
Property	0-1	0.629	0.484	0.317	0.465
Vandalism/public order	0-1	0.073	0.260	0.120	0.326
Drugs (%)	0-1	0.021	0.145	0.016	0.125
Guns	0-1	0.000	0.000	0.000	0.000
Other criminal law	0-1	0.019	0.138	0.010	0.100
Traffic	0-1	0.138	0.346	0.366	0.482
Other noncriminal law	0-1	0.027	0.162	0.055	0.228

^aUnemployment rates among women are inflated because this variable refers only to paid employment outside the home.

^bConvictions include guilty findings by a judge, prosecutorial waivers due to policy reasons, and prosecutorial fines.

(mean age 55.9 for women and 50.5 for men; $t = 11.2$, $p < .001$). Because of the age difference, it might be argued that women's and men's opportunity to offend after 1977 would differ. To check this possibility, we analyzed time at risk, which extended retrospectively to age 12 and prospectively to either the age of death or to 2003. On average, the time at risk for those people who died was 43.5 years for women and 40.2 for men (not significant). On average, the time at risk for those people who lived to 2003 was 43.9 years for women and 38.5 for men ($t = 11.220$, $df = 3,875$, $p < .0005$).

We concluded that time at risk did not differ significantly for women and men who died before 2003, but that for survivors, women had a significantly longer time at risk. Therefore, gender differences in participation or frequency could be biased toward higher numbers for women.

Operationalization

Prevalence. The prevalence analyses were based on conviction. Because the 1977 sample was based on cases with guilty as well as not guilty outcomes, 58 women and 161 men were in the sample but were never convicted during their life span.

Age of onset. Onset was defined as the person's age at the earliest registration ending in a conviction. People not convicted, therefore, are not included in the age of onset analysis.

Duration. Duration included only those individuals who had at least two convictions over their life course. It was defined as the number of years between registration for the earliest offense followed by conviction and registration for the last conviction in the life span. Duration included possible periods of incarceration, but analysis of termination was based on exposure time, the total number of years an individual was "free on the streets" for at least 6 months within a given period.

Frequency. Frequency was defined as the number of convictions during a given period. The time period might be the entire life span, or within specific age ranges (e.g., 10-14, 15-19, 20-25, etc.), or for each specific year of age. Following Piquero (2000), "chronic" offenders were defined as having five or more convictions in their life span (pp. 108-109). (High-rate chronic offenders were defined by trajectory analysis, below.) Individual frequencies were calculated for each age by dividing the number of convictions by the number who were criminally active (convicted at least once at that age). This measure is called lambda (λ) (Blumstein et al., 1986).

Crime mix. Offense type was measured by a three-category offense classification based on the standard classification of the Netherlands Central Bureau of Statistics: violent offenses (assault, sexual offenses, and robbery), property offenses (burglary and theft), and all other offenses (vandalism, offenses against the public order, drug offenses, offenses of the Firearms Act, other criminal law offenses, traffic offenses, and other special law offenses).

Trajectory analyzes. To analyze trajectories of convictions over the life span, we used a semiparametric group-based method (Nagin, 1999, 2005; Nagin & Land, 1993) that analyzes longitudinal processes evolving over time and identifies clusters of individuals with similar patterns of conviction records. Conceptually, this approach identifies groups of individuals who display similar behavioral trajectories (Nagin, 2005). The major advantage of the group-based model in relation to classical longitudinal models is that it does not make a priori assumptions about the distribution of the trajectories. The analyst can look at trajectory patterns within groups, which increases the ability to isolate specific pathways.

We estimated a zero-inflated Poisson form of a group-based trajectory model in which the natural logarithm of the number of convictions λ for persons j at age t , $\ln(\lambda_{jt})$,

is specified to follow a cubic function of age (age, age², and age³). The trajectory analysis stops at age 72 because of the small number of people in the sample older than 73.

Findings

Prevalence. Of the 4,612 people in the sample, 4,439 were convicted at least once in their life span and 177 (58 women and 161 men) were never convicted during their life span. Of those convicted at least once, 55.1% of the women and 79.5% of the men were convicted of at least two life-span offenses ($\chi^2 = 116.863$, $df = 1$, $p < .001$); of the 3,734 people who were convicted at least twice in their life span, 61.9% of the women and 86.1% of the men went on to be convicted of at least three life-span offenses ($\chi^2 = 148.858$, $df = 1$, $p < .001$). Of those convicted at least twice, the mean number of convictions was 6.8 for women and 14.9 for men ($t = 6.733$, $df = 3,732$, $p < .001$). There were clear gender differences in the age-based participation rate (see Figure 1). Women were less likely than men to be convicted at least once at every age from 12 to 47. From age 12 to age 47, the mean participation rate was 0.0618 ($SD = 0.026$) for women and 0.1649 ($SD = 0.071$) for men. Beginning at age 48, however, and continuing to age 72, the participation rates of women and men were roughly equal, with slight variations from year to year.⁸ The shape of the participation curve across age thus is much flatter for women than for men.

Duration: Age of Onset. The mean age of onset (age at registration for the earliest offense that was followed by conviction) was 29.3 for women and 21.5 for men ($t = 16.674$, $df = 4,436$, $p < .001$), ranging from 12 to 62 for women and 12 to 65 for men, and the median was 27 for women and 19 for men. Gender differences in adult onset offending remained significant when controlled for the number of life-span offenses. Of the 140 women and 564 men convicted only once over the life span, 19.3% of the women versus 11.5% of the men were age 45 or older at registration for that single conviction ($\chi^2 = 38.70$, $df = 5$, $p < .001$). Of the 227 women and 3,448 men convicted at least twice over the life span, 6.2% of the women versus 1.1% of the men were age 45 or older at registration for their earliest life-span conviction ($\chi^2 = 156.545$, $df = 5$, $p < .001$).⁹ Cumulative age of onset patterns were much flatter for women than for men (see Figure 2).¹⁰ In fact, the cumulative frequency for women's age of onset did not reach 90% until age 47. In contrast, 90% cumulative frequency for men was reached at age 36.

Duration: Age of Termination. For those with at least two convictions, the age at termination ranged from 17 to 77 for women and 14 to 77 for men. Mean age at the last conviction was 41.2 for women and 39.3 for men ($t = 2.497$, $df = 3,732$, $p = .013$); median age was 41 for women and 40 for men. These are significant but small differences. However, the number of conviction-free years before death or 2003 was much longer for women. Significantly more women (88%) than men (74%) had at least five conviction-free years, with 54% of women versus 23% of men having 25 or more years ($\chi^2 = 192.498$, $df = 4$, $p < .001$).

Mean overall criminal career duration was 15.3 years for the 227 women and 19.2 years for the 3,448 men who had at least two life-span convictions and for whom information was available on age at registration for the earliest conviction ($t = 5.259$,

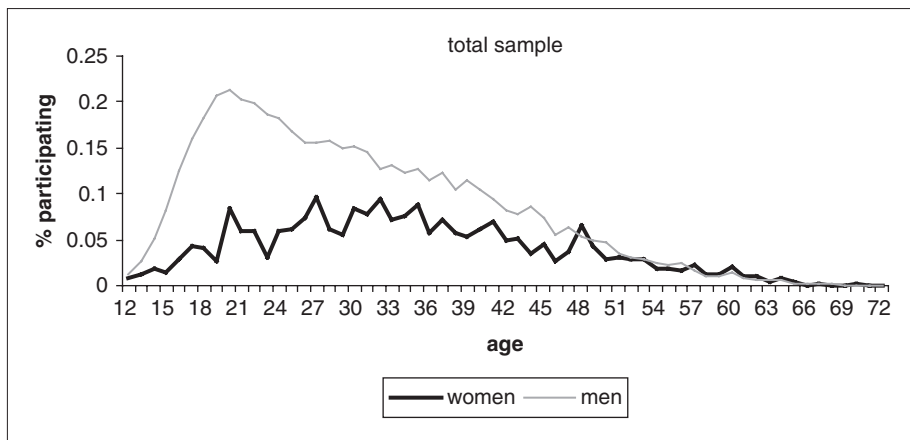


Figure 1. Mean participation^a per age, by gender

a. Chance of being convicted.

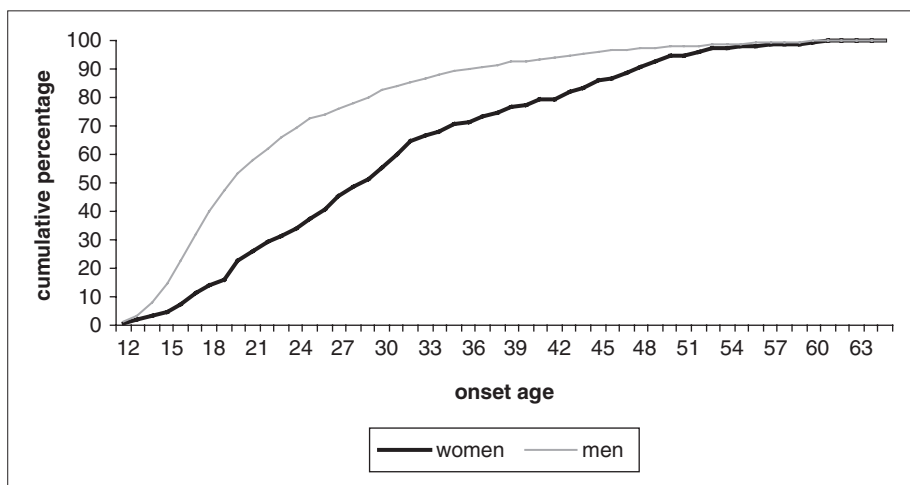


Figure 2. Cumulative age of onset by gender

$df = 3,673, p < .001$). For both women and men, mean career duration gradually declined with age of onset (Figure 3), averaging 17.6 for women and 19.8 for men at onset age 30 or younger ($t = 2.540, df = 3,354, p = .011$), 11.3 for women and 13.5 for men (*ns*) at onset age 31 to 40, and 6.2 for women and 8.8 for men (*ns*) at onset age 41 to 50 (only three women and 13 men had an onset age from 51 to 60). Correlations between duration and onset age through onset age 30 were $-.187$ ($p = .017$) for women and $-.182$ ($p < .001$) for men; from onset age 31 to 40, they were $-.049$ (*ns*) for women and $-.195$



Figure 3. Mean duration in years of criminal career by age of onset and gender

for men ($p = .007$); from onset age 41 to 50, they were $-.431$ ($p = .051$) for women and $-.099$ for men (*ns*). Furthermore, duration increased with the number of life-span convictions for both women and men. Given two or more convictions, the correlation between duration and life-span convictions was $.355$ ($p < .001$) for women and $.455$ ($p < .001$) for men.

Frequency. The 432 women in the CCLS were convicted of 1,674 offenses over their criminal career; the 4,180 men were convicted of 52,318 offenses. The highest number of life-span convictions for women was 112 compared to 184 for men. The most active 10% of women, who were convicted at least nine times in their life span, accounted for 43% of women's offenses. The most active 10% of men, who were convicted at least 31 times in their life span, accounted for 57% of men's offenses. Women were much less likely than men (21% vs. 58%, $\chi^2 = 214.8$, $df = 1$, $p < .001$) to become a chronic offender (at least five convictions), and these 90 women and 2,447 men differed significantly from each other in mean age of onset (22.6 vs. 18.8, $t = 6.674$, $df = 2,525$, $p < .001$) and whether there was at least one violent offense in their life span (37.8% vs. 71.6%, $\chi^2 = 46.646$, $df = 1$, $p < .001$). There was no difference in mean duration among chronic women (22.8 years) and men (22.6 years). Both women and men differed significantly from nonchronic offenders, however. For women, peak age of onset was 22.6 for chronics and 31.5 for nonchronics ($t = 7.022$, $df = 365$, $p < .001$), peak duration was 22.6 years for chronics and 5.8 years for nonchronics ($t = 15.702$, $df = 365$, $p < .001$), and likelihood of at least one violent offense in the life span was 37.8% for chronics and 10.2% for nonchronics ($\chi^2 = 40.101$, $df = 1$, $p < .001$), showing that women's as well as men's careers followed Farrington's (2003) widely accepted

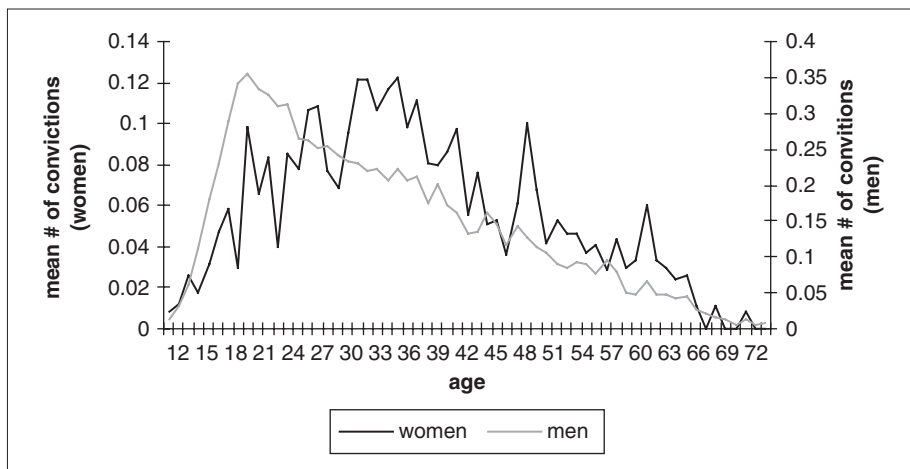


Figure 4. Mean frequency^a per age by gender (including person-years with nonconvictions)
a. Number of convictions.

conclusion that chronic offenders have earlier age of onset, longer duration, and more violent offenses in their career. In addition, the mean number of conviction-free years was significantly lower for women chronic offenders compared to women nonchronic offenders (8.3 vs. 20.9 years, $t = 13.785$, $df = 365$, $p < .001$). Women and men who were nonchronic offenders differed significantly in their mean conviction-free years (20.9 and 19.5 years, respectively, $t = 2.645$, $df = 1,899$, $t = .008$), but women and men who were chronic offenders did not differ significantly (8.3 and 8.5 years, respectively).

In both women's and men's raw age-crime curves (Figure 4), mean convictions increased sharply from age 12 to about age 20.¹¹ After age 20, the patterns diverged, with women's mean convictions remaining high from age 20 ($M = .10$) through age 40 ($M = .09$) and declining after age 40, and men's mean convictions peaked at age 20 ($M = .36$), and declined steadily thereafter.

There was little difference between women and men in individual conviction frequencies by age over the life span—lambda (λ).¹² Lambda (mean number of convictions at a given age for people who were convicted at least once at that age) was stable at about one and a half for women and slightly under two for men, regardless of age, with some slight decline after age 50 for both women and men (Figure 5). Specifically, mean convictions by age for criminally active women were 1.49 from age 13 to 51 and 1.20 from age 51 to 64; mean convictions by age for criminally active men were 1.81 from age 13 to 51 and 1.65 from age 51 to 64.

Crime Mix. Overall, property crimes predominated for women, regardless of the total number of life-span convictions, but not for men (see Figure 6). The proportion of property crimes was never lower than 58% (for women convicted once) and reached 78% for women convicted between 11 and 20 times over their life span, whereas for

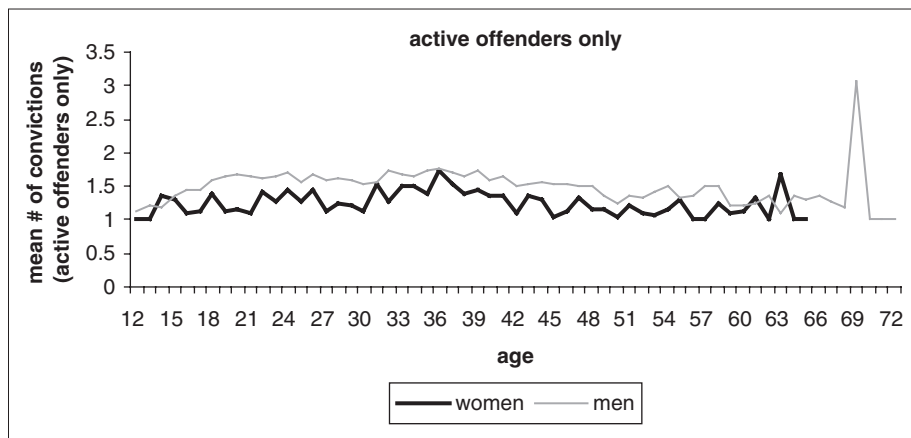


Figure 5. Lambda^a per age by gender (excluding person-years with nonconvictions)
a. Number of convictions.

men the proportion of property crimes gradually increased with the total number of convictions, only becoming the majority (50%) of offenses for men convicted at least 20 times. Comparing women and men with only one conviction in their life span, that offense was violent for 11.4% of women versus 24.9% of men ($\chi^2 = 6.559$, $df = 1$, $p = .01$). Comparing women and men with two or more convictions in their life span, at least one of those offenses was violent for 22.9% of women versus 60.5% of men ($\chi^2 = 123.496$, $df = 1$, $p < .001$).

For people with two or more life-span convictions, the proportion of all career offenses that were violent was .069 for women and .157 for men. There was no relationship between the duration of the criminal career and the proportion of violent offenses in that career. Even though the proportion of violent offenses was consistently lower for women than for men, a longer career was not more likely to contain violent offenses for either gender. For women with a career duration of 1 year or less, the violent proportion was .073 compared to .098 for careers of 10 to 19 years and .083 for careers of 30 or more years; for men with a career duration of 1 year or less, the violent proportion was .198 compared to .161 for careers of 10 to 19 years and .152 for careers of 30 or more years.

Patterns of Life-Span Offending. For the sample as a whole, a four-group semiparametric group-based model (Figure 7) proved to be most efficient when considering parsimony and comprehensibility. This model distinguished four groups of individuals with distinct conviction trajectories: sporadic offenders (SOs), low-rate desisters (LR-D), moderate-rate desisters (MR-D), and high-rate chronic offenders (HR). Based on the Bayesian Information Criterion, mean group probabilities, and theoretical interpretation of the trajectories (Nagin, 2005), the four-group model was clearly more efficient than alternative one-, two-, three-, five-, or six-group models. The three-group model

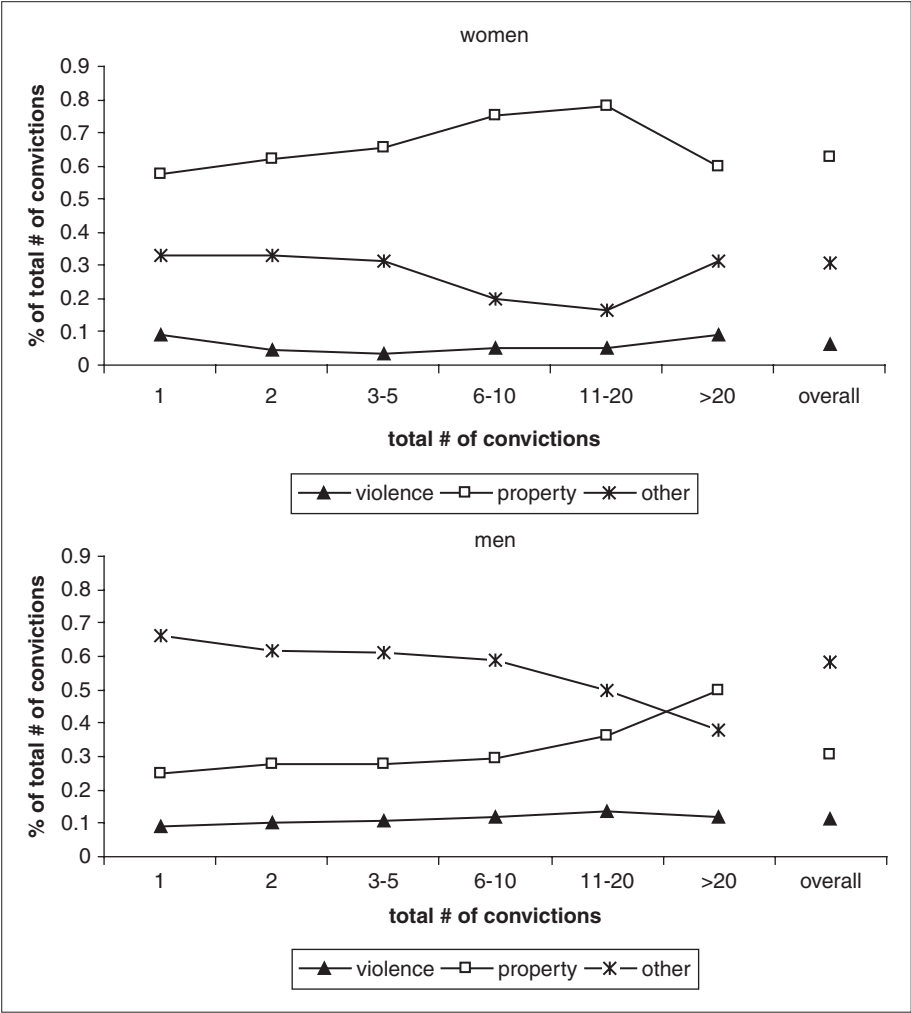


Figure 6. Violent versus property convictions by gender controlling for total life-span convictions

differentiated between those with a small number of convictions and two repeatedly convicted groups that mirrored the classic shape of the age-crime curve. Compared to the three-group model, the four-group model included a group with a steep rise in the number of convictions in the late teens that remained high during the larger part of adulthood. Because the five- and six-group model trajectories were similar to the four-group model, only differentiating further the group with hardly any life-span convictions, they did not reveal anything new in the data.

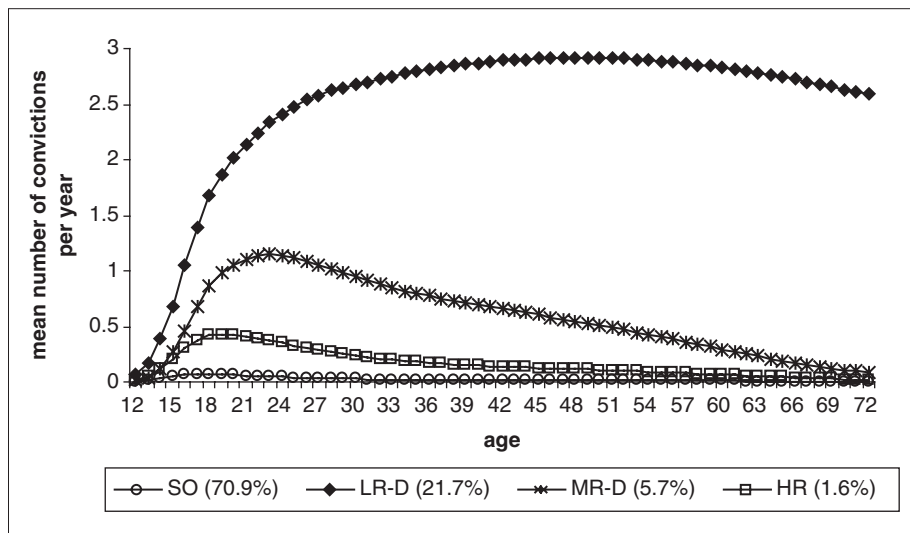


Figure 7. Developmental trajectories: Total sample of women and men

Source: SO: Sporadic Offenders; LR-D: Low-rate Desisters; MR-D: Moderate-rate Desisters; HR: High-rate chronic offenders.

For the sample as a whole, SOs accounted for 70.9%, LR-D accounted for 21.7%, MR-D accounted for 5.7%, and HR accounted for 1.6%. With this as the basis for comparison, we then classified women and men into the group for which their group membership probability was highest—the group they most likely belong to given their individual observed conviction trajectory. Table 2 shows the results, the distribution of women and men over the four identified trajectory groups. Although the rank order of the four trajectory types was similar for women and men, the distribution differed. The SOs, with conviction rates close to zero throughout adulthood, included the majority of both women (84%) and men (69%) but was more prominent among women. The LR-D group accounted for 14% of women and 23% of men; their conviction rates across the life-span trajectory rose steadily through early adulthood then declined in the mid- to late 30s. The MR-D group included 2% of women and 6% of men and followed the classic age-crime curve, with conviction rates peaking in early adulthood and declining steadily thereafter. The HR group included the smallest proportion of offenders—less than 1% of women and 2% of men. HR had high conviction rates throughout their 20s and 30s, only beginning to decline as they approached 40.

Discussion

This analysis of a large sample of women and men followed retrospectively through childhood and prospectively through adulthood had two goals: to examine the degree to which widely accepted conclusions about criminal careers (Farrington, 2003) apply

Table 2. Distribution of Women and Men Over the Four Identified Trajectory Groups

	Women (n = 432)	Men (n = 4,180)
Sporadic offenders	84.5%	69.2%
Low-rate desisters	13.0%	22.9%
Moderate-rate desisters	2.1%	6.2%
High-rate chronic offenders	0.4%	1.8%

to women and to discover women's pathways in and out of crime as they move through their life span from age 12 to death or old age.

Summary of Key Results

Prevalence. Girls and women were much less likely to participate in crime than were boys and men, whatever the measure used. Prevalence peaked in the late teenage years for boys and men but not for girls and women. Thus, one of the widely accepted conclusions of the developmental life-span literature seems to be true only for boys and men.

Duration: Age of onset. Age of onset, no matter how measured, was older for girls and women than for boys and men. Significantly more women than men began offending at age 45 or older, even when controlled for the number of lifetime offenses. The mean age of onset (29 for women and 22 for men) and the median (27 for women and 19 for men) were much older than the widely accepted conclusion that the onset of self-reported crime is in the mid-teens but consistent with or older than onset ages found in studies based on official records (Stattin et al., 1989), self-reports and official records (Farrington et al., 1998), or adult self-reports (Simpson et al., 2008).

Duration: Termination or desistance. As the prospective follow-up period lasted through age 60 for most people (or to death), an analysis of termination age was possible. For those with at least two convictions, the peak age at termination was 41 for women and 39 for men, older than the widely accepted conclusion that the peak age for desistance is 20 to 29 (Farrington, 2003). Women had considerably and significantly more conviction-free years than men before their death or the end of the 25-year follow-up. Mean career duration gradually declined with age of onset for both women and men, agreeing with the widely accepted conclusion that early onset predicts a longer criminal career (Farrington, 2003), and increased with the number of life-span convictions, agreeing with another widely accepted conclusion (Piquero et al., 2007).

Frequency. Given at least one conviction, women's average offense frequency over the life span was less than half that of men (4.6 vs. 13.0). Women's mean convictions declined from age 20 to age 40, whereas men's mean convictions did not decline with age. However, the individual offense frequencies over the life span (λ) did not differ for women and men. Agreeing with a widely accepted conclusion (Farrington, 2003), women chronic offenders (five or more convictions) had significantly earlier age of onset, longer duration, and higher likelihood of a violent offense in their career.

The gender difference in conviction-free years disappeared when controlled for chronicity; there was no gender difference for chronic offenders and a small but significant difference for nonchronic offenders (20.8 vs. 19.5 years).

Crime mix. Regardless of the total number of life-span convictions, property crimes tended to predominate for girls and women, but for boys and men, the proportion of property crimes tended to increase with total life-span convictions. The proportion of property crimes increased with age for women but not for men. This agrees with the widely accepted conclusion that criminal careers tend to be diverse rather than specialized (Piquero et al., 2007), but for men, this disagrees with the widely accepted conclusion that property offenses increase with age. The proportion of violent offenses was consistently lower for women than for men, but a longer career was not more likely to contain violent offenses for either gender, contrary to the widely accepted conclusion that the longer the duration, the more likely that the career will include a violent offense (Piquero et al., 2007).

Patterns of life-span offending. When women's life-span patterns of conviction were classified into one of the four groups of trajectories found best fitting for the sample as a whole, at least some women's careers were represented by each trajectory type, but the SO type was much more frequently a good fit for women than for men. Very few women or men followed the high-rate chronic trajectory, although that pattern was less common for women than men (0.4% vs. 1.8%).

Implications for Theory

Although many of these findings have implications for theory, one is especially important—the prevalence of adult onset among women offenders. Looking at the totality of dimensions describing life-span patterns in and out of crime, age of onset is a “key indicator” (Farrington et al., 1998, p. 104) underlying most of the rest. Therefore, the findings of significant gender differences in age of onset (peak age of onset was 29 for women vs. 22 for men; 19% of women with one conviction were 45 or older at registrations for that offense; 6.2% of women with more than one conviction were 45 or older at registration for the earliest conviction) not only challenge widely accepted conclusions of developmental life-span criminology but also require us to rethink life-span patterns in and out of crime for women. Although these findings agree with prospective longitudinal research, such as Stattin et al. (1989) and Farrington et al. (1998), they disagree with many other studies (Carrington et al., 2005; Gomez-Smith, 2004; Gomez-Smith & Piquero, 2005; Tolan & Thomas, 1995; Tracy & Kempf-Leonard, 1996; White & Piquero, 2004). However, they tend to agree with practitioners' observations of the characteristics and needs of women prison or parole populations (Green & Pranis, 2006), and with women's voices heard in feminist research (Simpson et al., 2008). Even though “feminist research *implicitly* suggests that pathways to crime are age-graded” (Simpson et al., 2008, p. 9, italics in original), very little feminist research has examined pathways to crime for those who begin to commit offenses in adulthood.

The findings on other dimensions of life-span careers, taken together, have additional implications for developmental life-span and feminist theory. Many constellations of career characteristics did not differ by gender. For women as for men, termination age was associated with onset age, number of life-span convictions, and duration; moreover, chronic offenders had earlier onset, longer duration, greater likelihood of a violent offense in their career, and fewer conviction-free years. Peak age at termination was considerably older than widely accepted conclusions would have it, with a small but significant gender difference (age 41 for women and 39 for men), and women's mean convictions declined from age 20 to 40 but men's did not. Women and men differed as well in property offenses over the life span, challenging the widely accepted conclusion that the proportion of property offenses increases with duration and (for men but not for women) that the proportion of property offenses increases with age.

These results underscore the complexity of life-span patterns and support theories that see pathways in and out of time as processes. Looking at desistance, for example, current researchers (e.g., Bushway et al., 2001) see it as a process, and feminist research suggests that the process is gendered (Giordano et al., 2002, 2006; Richie, 1996, 2001; Rungay, 2004). For example, De Li and MacKenzie (2003) found that social bonds (living with a spouse, having a job, attending school) strongly supported deterrence for men in the first 6 months after release but had the opposite effect for women.

Implications for Practice

These results have implications for practitioners working directly with girls and women who are at risk for a first offense or who are struggling to extricate themselves from a criminal career and for those who allocate funds, develop interventions, and set priorities. Practitioners may find it helpful to know that widely accepted conclusions about criminal careers may not apply in the same way to both genders; that a considerable proportion of women begin offending in adulthood, even after age 45; that women but not men commit a higher proportion of property offenses as they grow older; and that although most women follow a sporadic life-span pattern, some are HR. These aggregate findings cannot, by themselves, translate into action, however. They lack the individual life-circumstance detail that comes only from hearing the voices of people who are struggling to avoid or to end a criminal career. For example, although Baskin and Sommers (1998) found that women gave the same reasons for desisting as men usually give, for women it was the "overwhelming sense of despair" produced from being marginalized from their children, family, and community that eventually led them to begin the process leading to desistance (p. 132).

Limitations

All empirical studies are a snapshot of reality. The CCLS snapshot offers a view over the life span of a large number of women and men adjudicated in 1977 in the Netherlands, but it contains limited information on the pathways of each individual. These results,

therefore, apply only to the specific population represented by the sample. A larger concern is the source of offense-history data—criminal justice records, not self-reports. For boys and men through age 50, Farrington et al. (2006) found an average of 39 self-reported offenses per conviction; almost half of the self-reported offenses were committed by men who were never convicted. For most of the results presented here, this is not a serious problem, as relative gender differences in the timing of offenses may not be affected (Weis, 1986). Results on age of onset, however, are a concern. The first arrest or conviction may have been preceded by unrecorded arrests or convictions, rendering adult onset findings a “mirage” (Couture, 2009, p. 13). Several researchers have reported discrepancies between official and self-report data in age of onset (Massoglia, 2006; Moffitt et al., 2001). Without self-report data, it is impossible to know whether the large numbers of people in the CCLS sample whose first offense followed by conviction occurred late in life actually had earlier offenses that were not recorded by the criminal justice system. However, the same adult onset definition was applied to women and men; therefore gender differences in adult onset would not be affected by measurement. There could be, however, gender differences in the likelihood of criminal justice response to early offenses. Although tests found no gender bias in case outcome, gender bias in arrest is still an unknown possibility. Furthermore, because CCLS data follow people well past the transition into adulthood, they are less subject to other challenges to validity (Silverthorn & Frick, 1999). Arnett (2000) argues that the process of growing into adulthood can be stressful (also see Couture, 2009; Hagan & Foster, 2003). A study of adult onset may be confounded by this stress if adult onset is dichotomized during these “emerging adulthood” years, such as having a cut off at age 18 or age 21 (Gomez-Smith, 2004, p. 26; Gomez-Smith & Piquero, 2005, p. 523; Piquero, Brame, Mazerolle, & Haapanen, 2001).

The CCLS snapshot analyzed here is wide but shallow. It represents many people moving into and out of crime over a long life span but lacks life-history information. As Cauffman (2008), Daly and Chesney-Lind (1988), Holsinger (2000), Lanctôt and LeBlanc (2002), and Simpson et al. (2008) have argued, we cannot fully understand gender differences in offending without detailed information about the interaction of individual's criminal justice system involvement and other life circumstances. Feminist research suggests that a number of life circumstances are especially important for women, such as being a caretaker (Broidy & Agnew, 1997; Cunningham & Baker, 2003; Gilfus, 1992; Hagan et al., 1987), childbirth (Graham & Bowling, 1995), trauma and victimization (Arnold, 1990; Belknap & Holsinger, 2006; Benda, 2005; Benda et al., 2005; Broidy & Cauffman, 2006; Browne, Miller, & Maguin, 1999; Cauffman, 2008; Cernkovich et al., 2008; Chesney-Lind, 2002; DeHart, 2004; English, Widom, & Brandford, 2001; Fagan, 2003; Gilfus, 1992; Harlow, 1999; Katz, 2000; Lake, 1993; Lansford et al., 2007; Makarios, 2007; Miller, 2005, 2008; Owen, 1998; Richie, 2000; Wesely, 2006; Widom, 2000), sexual abuse and prostitution (Campbell, Ahrens, Seftl, & Clark, 2003; Harding & Hamilton, 2009; Widom & Kuhns, 1996), and the availability of friends and social support networks (Giordano et al., 2003; Lanctôt, Cernkovich, & Giordano, 2007), and that others apply to both women and men but in different ways,

such as blocked opportunity (Cernkovich & Giordano, 1979; Giordano et al., 2006), marriage (King, Massoglia, & Macmillan (2007), physical and mental health (Bardone et al., 1996), and use of alcohol or drugs (Baskin & Sommers, 1998; Bergman & Andershed, 2009; Cobbina, 2009; Elliott et al., 1989; Griffin & Armstrong, 2003; Johnson, 2004; Maher, Dunlap, & Johnson, 2002).

Instead of a “battleground of competing perspectives,” Weis (1986, p. 2) calls for integrating information from many sources, while being aware of the inadequacies of each particular source. The CCLS findings taken together with feminist literature reflecting women’s voices tell us that, in addition to focusing on early intervention, it is also important to focus on the challenges to women as they continue through their lives (see Xie, Cairns, & Cairns, 2005).

Future Directions

The study of the criminal careers of girls and women has entered an exciting phase. An increasing number of conscientious and creative researchers have begun to discover essential information about the experience of girls and women with crime and the criminal justice system. Some researchers carefully analyze the growing number of detailed longitudinal datasets containing information on both genders through the adult years, whereas others conduct fruitful qualitative research that reflects the voices of girls and women. Linked together, this body of research has potential for producing a quantum leap in the quality and availability of information on the criminal careers of girls and women. In turn, as they become increasingly accessible to policy makers and other practitioners, these research results potentially will become a knowledge base that could increase the quality of justice for girls and women.

Many women in the CCLS began a criminal career in adulthood and continued through middle age, during their peak childbearing and caretaking years. However, studies have only begun to explore the effects of having children on onset and termination, and the effects of women’s criminal careers on the lives of their children (Cunningham & Baker, 2003; Enos, 2001). For example, studies have found conflicting evidence about the effect of childbirth on desistance (Giordano et al., 2006; Graham & Bowling, 1995). Giordano et al. (2004) found that about half of the women and three fourth of the men who were followed 13 or 14 years after release from a juvenile corrections institution had either lost their children or never had custody of their children at all; Martin (1997), in a 5-year follow-up after release, found that a third of mothers had lost custody.

The substantial proportion of CCLS women who began offending in adulthood calls for more feminist research on pathways to crime for adult onset women. Simpson et al. (2008), for example, found that women with an adult onset career were less likely than other women to have a criminal career that included a violent incident, but they were more likely to have experienced violent victimization as adults. This raises several researchable questions, such as the following. Among women victimized as adults, what situations or support systems differentiate those who become offenders and those who do not? Do men with an adult onset career have the same crime mix in that career

as women? Are men with an adult onset career more likely than other men to have experienced violent victimization as adults? In general, we need more specific research on the gendered pathways to an adult onset criminal career and the opportunities for prevention or intervention within those pathways.

Finally, a great strength of feminist research is its attention to the constellation of causes that surround the onset and continuation of offending in girls and women. Many studies (e.g., Belknap, 2007; Belknap & Holsinger, 2006; Bloom, Owen, Rosenbaum, & Deschenes, 2003) reflect the voices and experiences of individual women and attest to the interrelationship of offending, victimization, caretaking, and other developmental aspects of women's lives. Building on this strength, research on the sequence of changing circumstances over the life span is especially important. For example, Chesney-Lind and Shelden (2004) describe the sequence of abuse at home, running away, and prostitution; Richie (1996) describes sequences in which criminality is a self-preservation response to abuse or coercion. Looking at the constellation of "local life circumstances" of 195 women who were being held in or recently released from a county jail and who said they had a drug problem, Griffin and Armstrong (2003, pp. 227-228) found a "stable living situation" (not being homeless or living on the street) significantly decreased the probability of nondrug offenses and that having a job, children at home, and a relationship decreased the probability of drug dealing over a 3-year follow-up period.

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The authors declared no potential conflicts of interests with respect to the authorship and/or publication of this article.

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Notes

1. However, Warren and Rosenbaum (1986) report that, of the sample of 260 women, 36 were dropped because adult records were not available, and 59 were dropped because their juvenile records had been expunged. They suggest that these 59 may have had fewer and less serious adult arrests.
2. The public prosecutor may decide to drop the case if prosecution probably would not lead to conviction, due to lack of evidence or technical considerations (procedural or technical waiver). The public prosecutor is also authorized to waive prosecution for reasons of public interest. The Board of Prosecutors General has issued national prosecution guidelines for such waivers (Tak, 2003).
3. In the additional sample, robbery, attempted robbery, public violence, and battery were sampled at 25%; murder, attempted murder, offenses against decency, rape, child molesting, and other sexual assaults were sampled at 100%; and drug offenses were sampled at 17%.

4. For details of sample replacement and weighting methods, see Block and van der Werff (1991) and Blokland (2005).
5. Most of the 1,044 excluded individuals were not registered to be living in the Netherlands and most likely represented tourists and illegal persons.
6. Information on the final decision is sent to the Criminal Record Office by the Public Prosecutor's Office, the court in first instance, and the higher court, respectively.
7. Including these prosecutorial waivers and fines makes the total volume of crime registered for our sample about 20% higher.
8. Although the CCLS contains data until the age of 87, because few people actually reach this age, Figures 1, 4, and 7 show only data to the age of 72.
9. For 62 of the 4,615 people in the sample, the age at arrest for the earliest conviction is missing.
10. The 177 people (57 women and 120 men) who were never convicted in their life span are not included in the analysis in Figure 2. Thus, the number of cases in Figure 2 is 4,438 (367 women and 4,071 men).
11. When the age-crime curves for women and men are plotted on the same scale, the curve for women is obscured. Therefore, Figure 4 plots raw age-crime curves on different scales.
12. Because of low numbers in the denominator, ages in which the denominator (number of active offenders) either for women or for men is less than five have been deleted from Figure 5. Therefore, this figure includes only ages 13 through 65.

References

- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55, 469-480.
- Arnold, R. A. (1990). Women of color: Processes of victimization and criminalization of Black women. *Social Justice*, 17, 153-166.
- Bardone, A. M., Moffitt, T. E., Caspi, A., Dickson, N., & Silva, P. A. (1996). Adult mental health and social outcomes of adolescent girls with depression and conduct disorder. *Developmental Psychopathology*, 8, 811-829.
- Baskin, D. R., & Sommers, I. B. (1998). *Casualties of community disorder: Women's careers in violent crime*. Boulder, CO: Westview.
- Belknap, J. (2007). *The invisible woman: Gender crime and justice* (Rev. ed.). Cincinnati, OH: Wadsworth.
- Belknap, J., & Holsinger, K. (2006). The gendered nature of risk factors for delinquency. *Feminist Criminology*, 1, 48-71.
- Benda, B. B. (2005). Gender differences in life-course theory of recidivism: A survival analysis. *International Journal of Offender Therapy and Comparative Criminology*, 49, 325-342.
- Benda, B. B., Harm, N. J., & Toombs, N. T. (2005). Survival analysis of recidivism of male and female boot camp graduates using life-course theory. *Journal of Offender Rehabilitation*, 40, 87-113.
- Bergman, L. R., & Andershed, A.-K. (2009). Predictors and outcomes of persistent or age-limited registered criminal behavior: A 30-year longitudinal study of a Swedish urban population (Special Section: Life Span Longitudinal Studies of Aggressive and Criminal Behavior). *Aggressive Behavior*, 35, 164-178.

- Bhana, K., & Hochfeld, T. (2001). *Now we have nothing: Exploring the impact of maternal imprisonment on children whose mothers killed an abusive partner* (Research report). Johannesburg, South Africa: Centre for the Study of Violence and Reconciliation.
- Blanchette, K., & Brown, S. L. (2006). *The assessment and treatment of women offenders: An integrative perspective*. Chichester, UK: Wiley.
- Block, C. R., & van der Werff, C. (1991). *Initiation and continuation of a criminal career: Who are the most active and dangerous offenders in the Netherlands*. The Hague, Netherlands: WODC, Ministerie van Justitie.
- Blokland, A. A. J. (2005). *Crime over the lifespan: Trajectories of criminal behavior in Dutch offenders*. Leiden, Netherlands: NSCR.
- Blokland, A. A. J., Nagin, D., & Nieuwbeerta, P. (2005). Life span offending trajectories of a Dutch conviction cohort. *Criminology*, 43, 919-954.
- Blokland, A. A. J., & Nieuwbeerta, P. (2005). The effects of life circumstances on longitudinal trajectories of offending. *Criminology*, 43, 1203-1240.
- Bloom, B., Owen, B., Rosenbaum, J., & Deschenes, E. P. (2003). Focusing on girls and young women: A gendered perspective on female delinquency. *Women and Criminal Justice*, 14, 117-136.
- Blumstein, A., Cohen, J., Roth, J. A., & Visser, C. A. (1986). *Criminal careers and career criminals* (Vol. 1). Washington, DC: National Academy Press.
- Brame, R., Fagan, J., Piquero, A. R., Schubert, C. A., & Steinberg, L. (2004). Criminal careers of serious delinquents in two cities. *Youth Violence and Juvenile Justice*, 2, 256-272.
- Broidy, L., & Agnew, R. (1997). Gender and crime: A general strain theory perspective. *Journal of Research in Crime and Delinquency*, 34, 275-306.
- Broidy, L. M., & Cauffman, E. E. (2006). *Understanding the female offender* (NCJRS 216615). Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.
- Browne, A., Miller, B., & Maguin, E. (1999). Prevalence and severity of lifetime physical and sexual victimization among incarcerated women. *International Journal of Law and Psychiatry*, 22, 301-322.
- Bushway, Shawn D., Alex R. Piquero, Lisa M. Broidy, Elizabeth E. Cauffman & Paul Mazerolle (2001). An empirical framework for studying desistance as a process. *Criminology*, 39, 491-515.
- Campbell, R., Ahrens, C. E., Sefl, T., & Clark, M. L. (2003). The relationship between adult sexual assault and prostitution: An exploratory analysis. *Violence and Victims*, 18, 299-317.
- Carrington, P. J., Matarazzo, A., & deSouza, P. (2005). *Court careers of a Canadian birth cohort* (Crime and Justice Research Paper Series, no. 85-561-MIE-No. 006). Ottawa, Ontario, Canada: Canadian Centre for Justice Statistics.
- Cauffman, E. E. (2008). Understanding the female offender. *Future of Children*, 18, 119-142.
- Cernkovich, S. A., & Giordano, P. C. (1979). Delinquency, opportunity, and gender. *Journal of Criminal Law and Criminology*, 70, 145-151.
- Cernkovich, S. A., Lanctôt, N., & Giordano, P. C. (2008). Predicting adolescent and adult anti-social behavior among adjudicated delinquent females. *Crime & Delinquency*, 54, 3-33.
- Chesney-Lind, Meda & Randall G. Sheldon (1998). *Girls, Delinquency, and Juvenile Justice*, 2nd Edition. Belmont, CA: West Wadsworth.
- Chesney-Lind, M. (2002). Criminalizing victimization: The unintended consequences of pro-arrest policies for girls and women. *Criminology and Public Policy*, 2, 81-91.

- Chung, I.-J., Hawkins, J. D., Gilchrist, L. D., Hill, K. G., & Nagin, D. S. (2002). Identifying and predicting offending trajectories among poor children. *Social Service Review*, 76, 663-685.
- Cobbina, J. E. (2009). *From prison to home: Women's pathways in and out of crime*. Unpublished PhD dissertation, University of Missouri, St. Louis.
- Cohen, L. E., & Vila, B. J. (1996). Self-control and social-control: An exposition of the Gottfredson-Hirschi/Sampson-Laub debate. *Studies in Crime and Crime Prevention*, 5, 125-150.
- Couture, H. L. (2009). *Criminal onset in emerging adulthood*. Unpublished PhD dissertation, Department of Criminology and Criminal Justice, University of Maryland, College Park.
- Covington, S. (2002). *A woman's journey home: Challenges for female offenders and their children*. Commissioned paper prepared for conference of "From Prison to Home: The Effect of Incarceration and Re-Entry on Children, Families and Communities" (January 30-31, 2002). Washington, DC: US Department of Health and Human Services and the Urban Institute.
- Cunningham, A., & Baker, L. (2003). *Waiting for mommy: Giving a voice to the hidden victims of imprisonment*. London, Ontario, Canada: Centre for Children and Families in the Justice System, London Family Court Clinic.
- Daly, K. (1994). *Gender, crime, and punishment*. New Haven, CT: Yale University Press.
- Daly, K., & Chesney-Lind, M. (1988). Feminism and criminology. *Justice Quarterly*, 5, 497-535.
- DeHart, D. D. (2004). *Pathways to prison: Impact of victimization in the lives of incarcerated women* (Report submitted to the National Institute of Justice, Grant # 2000-WT-VX-0010). Washington, DC: US Department of Justice.
- DeLisi, M. (2002). Not just a boys club: An empirical assessment of female career criminals. *Women & Criminal Justice*, 13(4), 27-45.
- Denno, D. (1994). Gender, crime, and the criminal law defenses. *Journal of Criminal Law and Criminology*, 85, 80-80.
- D'Unger, A. V. (2000). *Influence of neighborhood, peer, and family context: Trajectories of delinquent/criminal offending across the life course*. Unpublished doctoral dissertation, Sociology Department, Duke University, Durham, NC.
- D'Unger, A. V., Land, K., & McCall, P. (2002). Sex differences in age patterns of delinquent/criminal careers: Results from Poisson Latent Class Analyses of the Philadelphia Cohort Study. *Quantitative Criminology*, 18, 349-375.
- Eggleston, E. P., & Laub, J. H. (2002). The onset of adult offending: A neglected dimension of the criminal career. *Journal of Criminal Justice*, 30, 603-622.
- Elliott, D. S. (1994). Serious violent offenders: Onset, developmental course, and termination—The American Society of Criminology 1993 presidential address. *Criminology*, 32, 1-21.
- Elliott, D. S., Huizinga, D., & Menard, S. (1989). *Multiple problem youth: Delinquency, substance use, and mental health problems*. New York: Springer-Verlag.
- English, D. J., Widom, C. S., & Brandford, C. (2001). *Childhood victimization and delinquency, adult criminality, and violent criminal behavior: A replication and extension* (Final report to NIJ; Report No. NCJ 192291). Washington, DC: National Institute of Justice.
- English, K. (1993). Self-reported crime rates of women prisoners. *Quantitative Criminology*, 9, 357-382.
- Enos, S. (2001). *Mothering from the inside: Parenting in a women's prison*. Albany: State University of New York Press.

- Ensminger, M. E., Kellam, S. G., & Rubin, B. R. (1983). School and family origins of delinquency: Comparisons by sex. In K. T. Van Dusen & S. A. Mednick (Eds.), *Prospective studies of crime and delinquency* (pp. 73-97). Boston: Kluwer-Nijhoff.
- Fagan, A. A. (2003). The short- and long-term effects of adolescent violent victimization experienced within the family and community. *Violence and Victims, 18*, 445-459.
- Farrington, D. P. (2003). Developmental and life-course criminology: Key theoretical and empirical issues—The 2002 Sutherland Award address. *Criminology, 41*, 221-225.
- Farrington, D. P., Coid, J. W., Harnett, L., Jolliffe, D., Soteriou, N., Turner, R., et al. (2006). *Criminal careers up to age 50 and life success up to age 48: New findings from the Cambridge Study in Delinquent Development* (Home Office Research Study 299). London: Home Office.
- Farrington, D. P., Lambert, S., & West, D. J. (1998). Criminal careers of two generations of family members in the Cambridge Study in Delinquent Development. *Studies on Crime and Crime Prevention, 7*(1), 85-106.
- Farrington, D. P., & Painter, K. A. (2004). *Gender differences in offending: Implications for risk-focused prevention*. London: Home Office.
- Fergusson, D. M. & Horwood, L. J. (2002). Male and female offending trajectories. *Developmental Psychopathology, 14*, 159-177.
- Ferraro, K., & Moe, A. (2003). Mothering, crime and incarceration. *Journal of Contemporary Ethnography, 32*, 9-40.
- Flavin, J. (2001). Feminism for the mainstream criminologist: An invitation. *Journal of Criminal Justice, 29*, 271-285.
- Gilfus, M. E. (1992). From victims to survivors to offenders: Women's routes of entry and immersion into street crime. *Women & Criminal Justice, 4*(1), 63-90.
- Giordano, P. C., Cernkovich, S. A., & Holland, D. D. (2003). Changes in friendship relations over the life course: Implications for desistance from crime. *Criminology, 41*, 293-327.
- Giordano, P. C., Cernkovich, S. A., & Lowery, A. R. (2004). A long-term follow-up of serious adolescent female offenders. In M. Putallaz & K. L. Bierman (Eds.), *Aggression, antisocial behavior, and violence among girls: A developmental perspective* (pp 186-202). New York: Guilford.
- Giordano, P. C., Cernkovich, S. A., & Rudolph, J. L. (2002). Gender, crime and desistance: Toward a theory of cognitive transformation. *American Journal of Sociology, 107*, 990-1064.
- Giordano, P. C., Deines, J. A., & Cernkovich, S. A. (2006). In and out of crime: A life course perspective on girls' delinquency. In K. Heimer & C. Kruttschnitt (Eds.), *Gender and crime patterns in victimization and offending* (pp. 17-40.) New York: New York University Press.
- Glueck, S., & Glueck, E. T. (1934). *500 delinquent women*. New York: Alfred A. Knopf.
- Gomez-Smith, Z. (2004). *An examination of adult onset offending*. Unpublished MA thesis, Department of Criminology and Law, University of Florida, Gainesville.
- Gomez-Smith, Z., & Piquero, A. R. (2005). An examination of adult onset offending. *Journal of Criminal Justice, 33*, 515-525.
- Graham, J., & Bowling, B. (1995). *Young people and crime* (Home Office Research Study 145). London: Home office.
- Green, B. L., & Rodgers, A. (2001). Determinants of social support among low-income mothers: A longitudinal analysis. *American Journal of Community Psychology, 29*, 419-441.
- Green, J. & Pranis, K. (2006). *Hard hit: The growth in the imprisonment of women, 1977-2004*. New York: Women's Prison Association.

- Griffin, M. L., & Armstrong, G. S. (2003). The effect of local life circumstances on female probationer's offending. *Justice Quarterly*, 20, 213-239.
- Hagan, J., & Foster, H. (2003). S/he's a rebel: Toward a sequential stress theory of delinquency and gendered pathways to disadvantage in emerging adulthood. *Social Forces*, 82(1), 53-86.
- Hagan, J., Simpson, J., & Gillis, A. R. (1987). Class in the household: A power-control theory of gender and delinquency. *American Journal of Sociology*, 92, 788-815.
- Hämäläinen, Minna & Lea Pulkkinen (1995). Aggressive and non-prosocial behavior as precursors of criminality. *Studies on Crime and Crime Prevention*, 4, 6-12.
- Harding, R., & Hamilton, P. (2009). Working girls: Abuse or choice in street-level sex work? A study of homeless women in Nottingham. *British Journal of Social Work*, 39, 1118-1137.
- Harlow, C. W. (1999). *Prior abuse reported by inmates and probationers* (Special report, NCJ 172879). Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.
- Harm, N. J., & Phillips, S. D. (2001). You can't go home again: Women and criminal recidivism. *Journal of Offender Rehabilitation*, 3, 3-21.
- Heimer, K. (1995). Gender, race, and pathways to delinquency: An interactionist analysis. In J. Hagan & R. D. Peterson (Eds.), *Crime and inequality* (pp. 140-173). Stanford, CA: Stanford University Press.
- Hipwell, A. E., & Loeber, R. (2006). Do we know which interventions are effective for disruptive and delinquent girls? *Clinical Child and Family Psychology Review*, 9, 221-255.
- Holsinger, K. (2000). Feminist perspectives on female offending: Examining real girls' lives. *Women & Criminal Justice*, 12(1), 23-51.
- Holtfreter, K., Reisig, M. D., & Morash, M. (2004). Poverty, state capital and recidivism among women offenders. *Criminology and Public Policy*, 3, 185-208.
- Howard League for Penal Reform. (1995). *Prison mother and baby units* (Briefing paper). London: The Howard League for Penal Reform.
- Hoyt, S., & Scherer, D. G. (1998). Female juvenile delinquency: Misunderstood by the juvenile justice system, neglected by social science. *Law and Human Behavior*, 22(1), 81-107.
- Johnson, H. (2004). *Drugs and crime: A study of incarcerated female offenders* (Research and Public Policy Series, No. 63). Canberra, Australia: Australian Institute of Criminology.
- Juon, H.-S., Doherty, E. E., & Ensminger, M. E. (2006). Childhood behavior and adult criminality: Cluster analysis in a prospective study of African Americans. *Quantitative Criminology*, 22, 193-214.
- Katz, R. S. (2000). Explaining girls' and women's crime and desistance in the context of their victimization experiences. *Violence Against Women*, 6, 633-660.
- Kempf-Leonard, K., Tracy, P. E., & Howell, J. C. (2001). Serious, violent, and chronic juvenile offenders: The relationship of delinquency career types to adult criminality. *Justice Quarterly*, 18, 449-478.
- King, R. D., Massoglia, M., & Macmillan, R. (2007). The context of marriage and crime: Gender, the propensity to marry, and offending in early adulthood. *Criminology*, 45, 33-65.
- Kratzer, L., & Hodgins, S. (1999). A typology of offenders: A test of Moffitt's theory among males and females from childhood to age 30. *Criminal Behaviour and Mental Health*, 9, 57-73.
- Krutttschnitt, C. (1994). Gender and interpersonal violence. In A. J. Reiss, Jr. & J. A. Roth (Eds.), *Understanding and preventing violence: Vol. 3: Social influences* (pp. 295-378). Washington, DC: National Academy Press.

- Kyvsgaard, B. (2003). *The criminal career: The Danish longitudinal study*. Cambridge, UK: Cambridge University Press.
- Lake, E. S. (1993). An exploration of the violent victim experiences of female offenders. *Violence and Victims*, 8, 41-51.
- Lancôt, N., Cernkovich, S. A., & Giordano, P. C. (2007). Delinquent behavior, official delinquency, and gender: Consequences for adulthood functioning and well-being (Working paper series 06-07, Center for Family and Demographic Research). Bowling Green, OH: Bowling Green State University.
- Lancôt, N., & LeBlanc, M. (2002). Explaining deviance by adolescent females. In M. Tonry (Ed.), *Crime and justice: An annual review of research* (Vol. 29, pp. 113-202). Chicago: University of Chicago Press.
- Landsheer, J. A., & van Dijkum, C. (2005). Male and female delinquency trajectories from pre through middle adolescence and their continuation in late adolescence. *Adolescence*, 40, 729-748.
- Lansford, J. E., Miller-Johnson, S., Berlin, L. J., Dodge, K. A., Bates, J. E., & Pettit, G. S. (2007). Early physical abuse and later violent delinquency: A prospective longitudinal study. *Child Maltreatment*, 12, 233-245.
- Leonard, E. B. (1982). *Women, crime, and society: A critique of theoretical criminology*. New York: Longman.
- De Li, S., & MacKenzie, D. L. (2003). The gendered effects of adult social bonds on criminal activities of probationers. *Criminal Justice Review*, 28, 278-298.
- Loucks, N. (2004). *Prison without bars: Needs, support, and good practice for work with prisoners' families*. Tayside, Scotland: Tayside Criminal Justice Partnership and Families Outside.
- Luke, K. P. (2002). Mitigating the ill effects of maternal incarceration on women in prison and their children. *Child Welfare*, 81, 929-948.
- MacDonald, J. M., & Chesney-Lind, M. (2001). Gender bias and juvenile justice revisited: A multiyear analysis. *Crime & Delinquency*, 47, 173-195.
- Maher, L., Dunlap, E., & Johnson, B. D. (2002). Black women's pathways to involvement in illicit drug distribution and sales: An exploratory ethnographic analysis. In S. Brochu, C. Da Agra, & M.-M. Cousineau (Eds.), *Drugs and crime deviant pathways* (pp. 167). Hampshire, UK: Ashgate.
- Makarios, M. D. (2007). Race, abuse and female criminal violence. *Feminist Criminology*, 2, 100-116.
- Martin, M. (1997). Connected mothers: A follow-up study of incarcerated women and their children. *Women and Criminal Justice*, 8, 1-23.
- Massoglia, M. (2006). Desistance or displacement? The changing patterns of offending from adolescence to young adulthood. *Journal of Quantitative Criminology*, 22, 215-239.
- Mazerolle, P., Brame, R., Paternoster, R., Piquero, A., & Dean, C. (2000). Onset age, persistence, and offending versatility: Comparisons across gender. *Criminology*, 38, 1143-1172.
- Miller, J. (2008). *Getting played: African American girls, urban inequality, and gendered violence*. New York: New York University Press.
- Miller, S. L. (2005). *Victims as offenders: The paradox of women's violence in relationships*. New Brunswick, NJ: Rutgers University Press.
- Moffitt, T. E., & Caspi, A. (2001). Childhood predictors differentiate life-course persistent and adolescence-limited pathways, among males and females. *Development and Psychopathology*, 13, 355-375.

- Moffitt, T. E., Caspi, A., Rutter, M., & Silva, P. A. (2001). *Sex Differences in antisocial behaviour: Conduct disorder, delinquency, and violence in the Dunedin Longitudinal Study*. Cambridge, UK: Cambridge University Press.
- Morris, A. (1987). *Women, crime and criminal justice*. Oxford, UK: Basil Blackwell.
- Nagin, D. S. (1999). Analyzing developmental trajectories: A semiparametric, group-based approach. *Psychological Methods*, 4, 139-157.
- Nagin, D. S. (2005). *Group-based modeling of development over the life course*. Cambridge, MA: Harvard University Press.
- Nagin, D. S., & Land, K. C. (1993). Age, criminal careers, and population heterogeneity: Specification and estimation of a nonparametric, mixed Poisson model. *Criminology*, 31, 327-362.
- Nagin, D. S., & Tremblay, R. E. (2005). What has been learned from group-based trajectory modeling? Examples from physical aggression and other problem behaviors. *Annals of the American Academy of Political and Social Science*, 602, 82-117.
- Owen, B. (1998). *In the mix: Struggle and survival in a women's prison*. Albany: State University of New York Press.
- Pepler, D. J., & Craig, W. M. (2005). Aggressive girls on troubled trajectories: A developmental perspective. In D. J. Pepler, K. C. Madsen, C. Webster, & K. S. Leene (Eds.), *The development and treatment of girlhood aggression* (pp. 3-28). Mahwah, NJ: Lawrence Erlbaum.
- Piquero, A. R. (2000). Assessing the relationships between gender, chronicity, seriousness and skewness in criminal offending. *Journal of Criminal Justice*, 28, 103-116.
- Piquero, A. R., Brame, R., Mazerolle, P., & Haapanen, R. (2001). *Crime in emerging adulthood: Continuity and change in criminal offending* (Report to NIJ, Grant No. 99-IJ-CX-0058). Washington, DC: National Institute of Justice.
- Piquero, A. R., & Chung, H. L. (2001). On the relationships between gender, early onset, and the seriousness of offending. *Journal of Criminal Justice*, 29, 189-206.
- Piquero, A. R., Farrington, D. P., & Blumstein, A. (2007). *Key issues in criminal career research: New analyses of the Cambridge study in delinquent development*. Cambridge, UK: Cambridge University Press.
- Prime, J., White, S., Liriano, S., & Patel, K. (2001). *Criminal careers of those born between 1953 and 1978* (UK Home Office Statistical Bulletin 4/01). Retrieved June 27, 2007, from www.homeoffice.gov.uk/rds/pdfs/hosb401.pdf
- Rantakallio, P., Myhrman, A., & Koiranen, M. (1995). Juvenile offenders, with special reference to sex differences. *Social Psychiatry and Psychiatric Epidemiology*, 30, 113-120.
- Rasche, C. (1975). The female offender as an object of criminological research. In A. M. Brodsky (Ed.), *The female offender* (pp. 9-28). Beverly Hills, CA: Sage.
- Reckdenwald, A., & Parker, K. F. (2008). The influence of gender inequality and marginalization on types of female offending. *Homicide Studies*, 12, 208-226.
- Reisig, M. D., Holtfreter, K., & Morash, M. (2006). Assessing recidivism risk across female pathways to crime. *Justice Quarterly*, 23, 384-405.
- Rhodes, W. (1989). The criminal career: Estimates of the duration and frequency of crime commission. *Quantitative Criminology*, 5, 3-32.
- Richie, B. E. (1996). *Compelled to crime: The gender entrapment of battered Black women*. New York: Routledge.

- Richie, B. E. (2000). Exploring the links between violence against women and women's involvement in illegal activity. In B. Ritchie, K. Tsenin, & C. Widom (Eds.), *Research on women and girls in the justice system* (Research Forum, NCJ 180973, pp. 1-14). Washington, DC: National Institute of Justice.
- Richie, B. E. (2001). Challenges incarcerated women face as they return to their communities: Findings from life history interviews. *Crime & Delinquency*, 47, 368-389.
- Robins, L. N. (1966). *Deviant children grown up: A sociological and psychiatric study of sociopathic personality*. Baltimore: Williams & Wilkins.
- Rojek, D. G., & Erickson, M. L. (1982). Delinquent careers: A test of the career escalation model. *Criminology*, 20, 5-28.
- Rumgay, J. (2004). Scripts for safer survival: Pathways out of female crime. *Howard Journal of Criminal Justice*, 43, 405-419.
- Shannon, L. W. (1988). *Criminal career continuity: Its social context*. New York: Human Sciences Press.
- Shannon, L. W. (1991). *Changing patterns of delinquency and crime: A longitudinal study in Racine*. Boulder: Westview.
- Sharp, S. F., & Marcus-Mendoza, S. T. (2001). It's a family affair: Incarcerated women and their families. *Women and Criminal Justice*, 12, 21-49.
- Silverthorn, P. & Frick, P. J. (1999). Developmental pathways to antisocial behavior: The delayed-onset pathway in girls. *Development and Psychopathology*, 11, 101-126.
- Simpson, S. S., Yahner, J. L., & Dugan, L. (2008). Understanding women's pathways to jail: Analysing the lives of incarcerated women. *Australian and New Zealand Journal of Criminology*, 41(1), 84-108.
- Slocum, L. A., Simpson, S. S., & Smith, D. A. (2005). Strained lives and crime: Examining intra-individual variation in strain and offending in a sample of incarcerated women. *Criminology*, 43, 1067-1110.
- Snyder, H. N. (1988). *Court careers of juvenile offenders*. Pittsburgh, PA: National Centre for Juvenile Justice.
- Soothill, K., Francis, B., & Fligelstone, R. (2000). *Patterns of offending behavior: A new approach*. London: Home Office.
- Stattin, H., Magnusson, D., & Reichel, H. (1989). Criminal activity at different ages: A study based on a Swedish longitudinal research population. *British Journal of Criminology*, 29, 368-385.
- Tak, P. J. P. (2003). *The Dutch criminal justice system: Organization and operation*. Meppel, Netherlands: Boom Juridische Uitgevers.
- Tillman, R. (1987). The size of the criminal population: The prevalence and incidence of adult arrest. *Criminology*, 25, 561-579.
- Tolan, P. H., & Thomas, P. (1995). The implications of age of onset for delinquency risk, II: Longitudinal data. *Journal of Abnormal Child Psychology*, 23, 47-65.
- Tracy, P. E., & Kempf-Leonard, K. (1996). *Continuity and discontinuity in criminal careers*. New York: Plenum.
- Tracy, P. E., Wolfgang, M. E., & Figlio, R. M. (1985). *Delinquency in two birth cohorts* (Executive summary). Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

- Visher, C. A. (2000). Career criminals and crime control. In Joseph F. Sheley (Ed.), *Criminology: A contemporary handbook* (3rd ed., pp. 601-621). Belmont, CA: Wadsworth.
- Visher, C. A., & Roth, J. A. (1986). Participation in criminal careers. In A. Blumstein, J. Cohen, J. A. Roth, & C. A. Visher (Eds.), *Criminal careers and career criminals* (Vol. 1, pp. 161-211). Washington, DC: National Academy Press.
- Warren, M. Q., & Rosenbaum, J. L. (1986). Criminal careers of female offenders. *Criminal Justice and Behavior*, 13, 393-418.
- Weis, J. G. (1986). Issues in the measurement of criminal careers. In A. Blumstein, J. Cohen, J. A. Roth, & C. A. Visher (Eds.), *Criminal careers and career criminals* (Vol. 2, pp. 1-51). Washington, DC: National Academy Press.
- van der Werff, C. (1981). Recidivism and special deterrence. *British Journal of Criminology*, 21, 136-147.
- van der Werff, C. (1986). *Recidive 1977; Recidivecijfers van in 1977 wegens misdrijf veroordeelden en niet-vervolgden*. (Recidivism 1997; Recidivism data for offenses prosecuted and not prosecuted in 1977). Den Haag, Netherlands: WODC, Ministerie van Justitie.
- van der Werff, C. (1989). *Recidivism 1977: Rates of recidivism for persons convicted and persons whose case was dropped in 1977 (indictable offenses)*. Den Haag, Netherlands: WODC, Ministerie van Justitie.
- Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High risk children from birth to adulthood*. Ithaca, NY: Cornell University Press.
- Werner, E. E., & Smith, R. S. (2001). *Journeys from childhood to midlife: Risk, resilience, and recovery*. Ithaca, NY: Cornell University Press.
- Wesely, J. K. (2006). Considering the context of women's violence: Gender, lived experiences, and cumulative victimization. *Feminist Criminology*, 1, 303-328.
- White, N. A., & Piquero, A. R. (2004). A preliminary empirical test of Silverthorn and Frick's delayed-onset pathway in girls, using an urban, African-American, US-based sample. *Criminal Behaviour and Mental Health*, 14, 291-309.
- Widom, C. S. (2000). Childhood victimization and the derailment of girls and women to the criminal justice system. In B. Ritchie, K. Tsenin, & C. Widom (Eds.), *Research on women and girls in the justice system* (Research forum, NCJ 180973, pp. 27-36). Washington, DC: National Institute of Justice.
- Widom, C. S., & Kuhns, J. B. (1996). Childhood victimization and subsequent risk for promiscuity, prostitution, and teenage pregnancy: A prospective study. *American Journal of Public Health*, 86, 1607-1612.
- Wikström, P.-O. H. (1990). Age and crime in a Stockholm cohort. *Quantitative Criminology*, 6, 61-84.
- Woodrow, J. (1992). Mothers inside, children outside: What happens to the dependent children of female inmates? In R. Shaw (Ed.), *Prisoners' children: What are the issues?* (pp. 29-40). London: Routledge.
- Xie, H., Cairns, B. D., & Cairns, R. B. (2005). The development of aggressive behaviors among girls: Measurement issues, social functions, and differential trajectories. In D. J. Pepler, K. C. Madsen, C. Webster & K. S. Levene (Eds.), *The development and treatment of girlhood aggression* (pp 105-136). Mahwah, NJ: Erlbaum.

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